

FIGURE 1

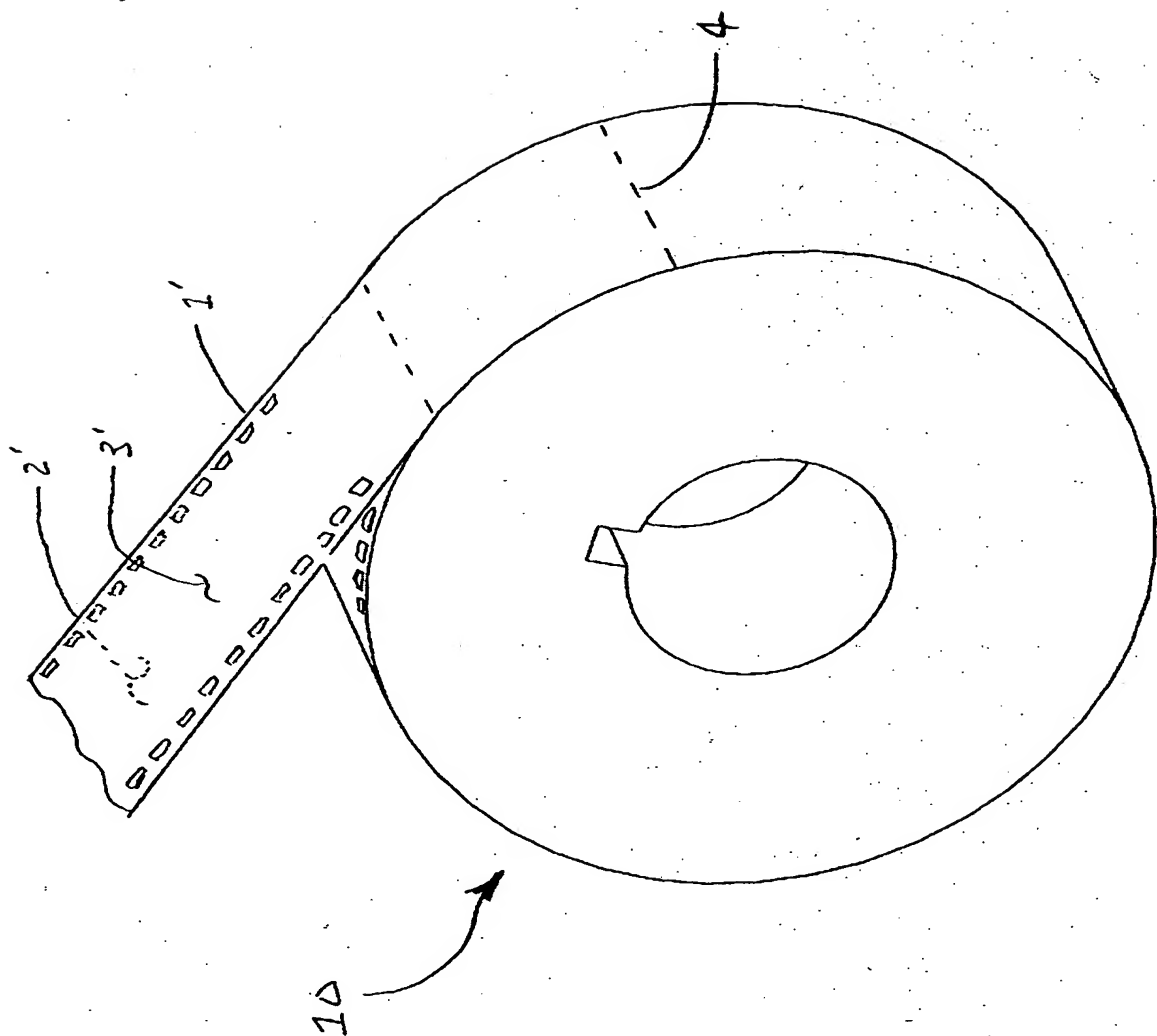


FIGURE 2

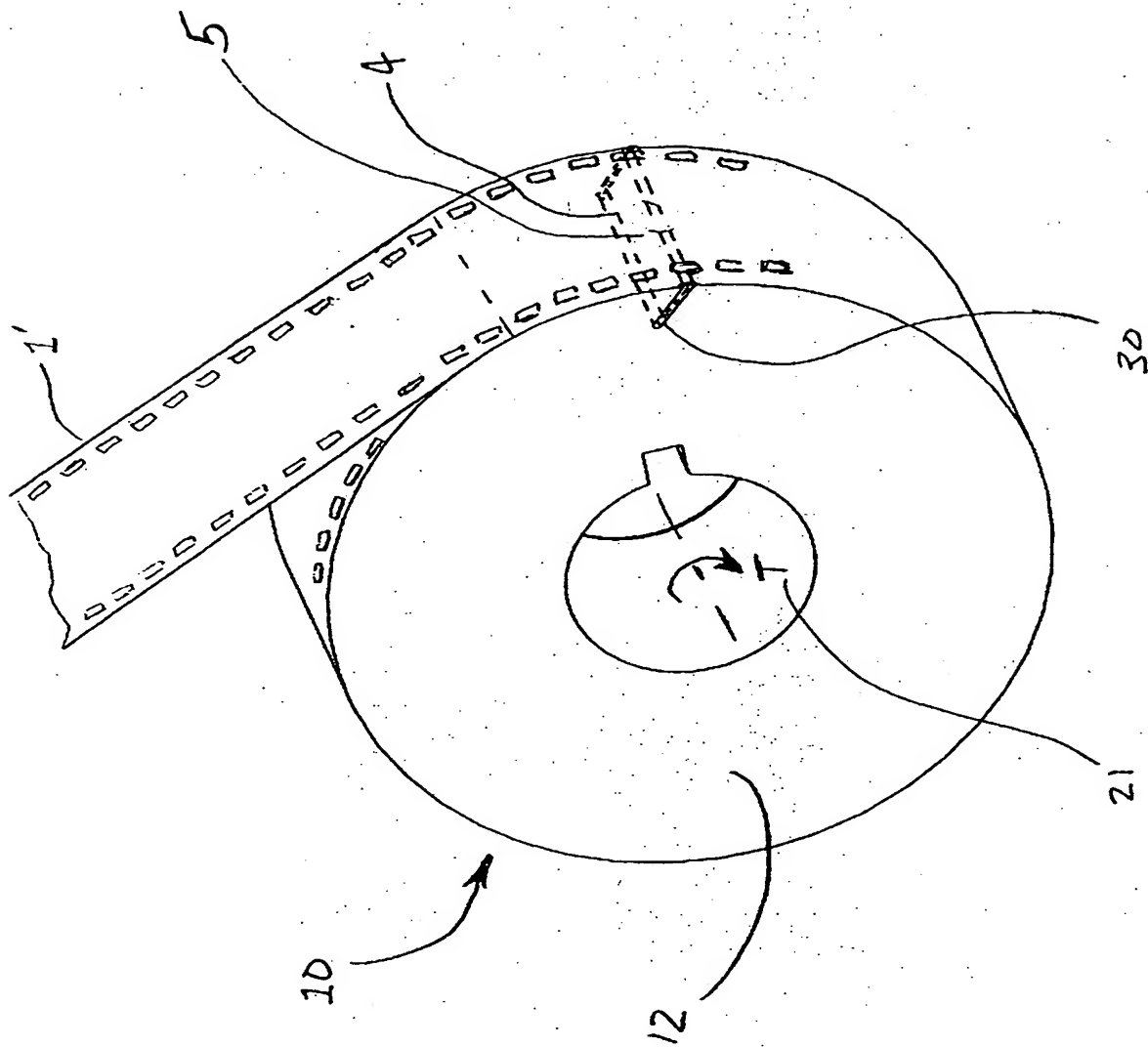


FIGURE 3

# Debris Comparison for Film Core Candidates (Ball)

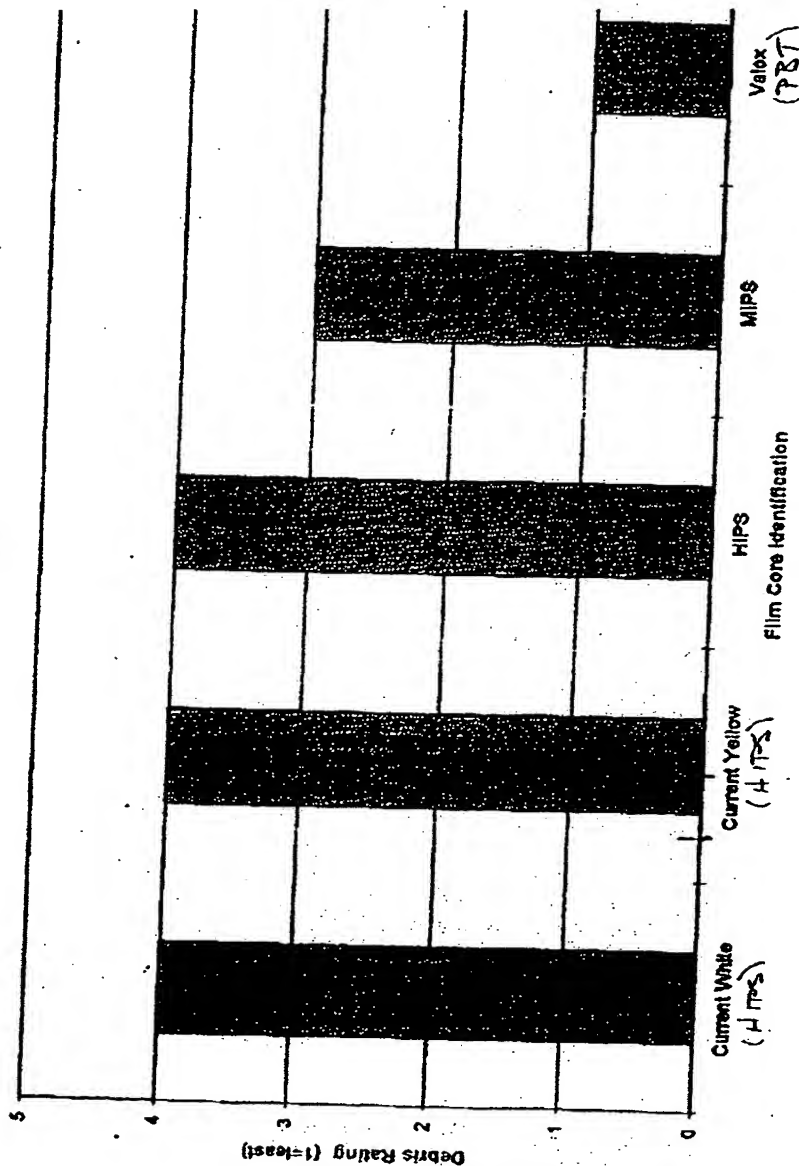
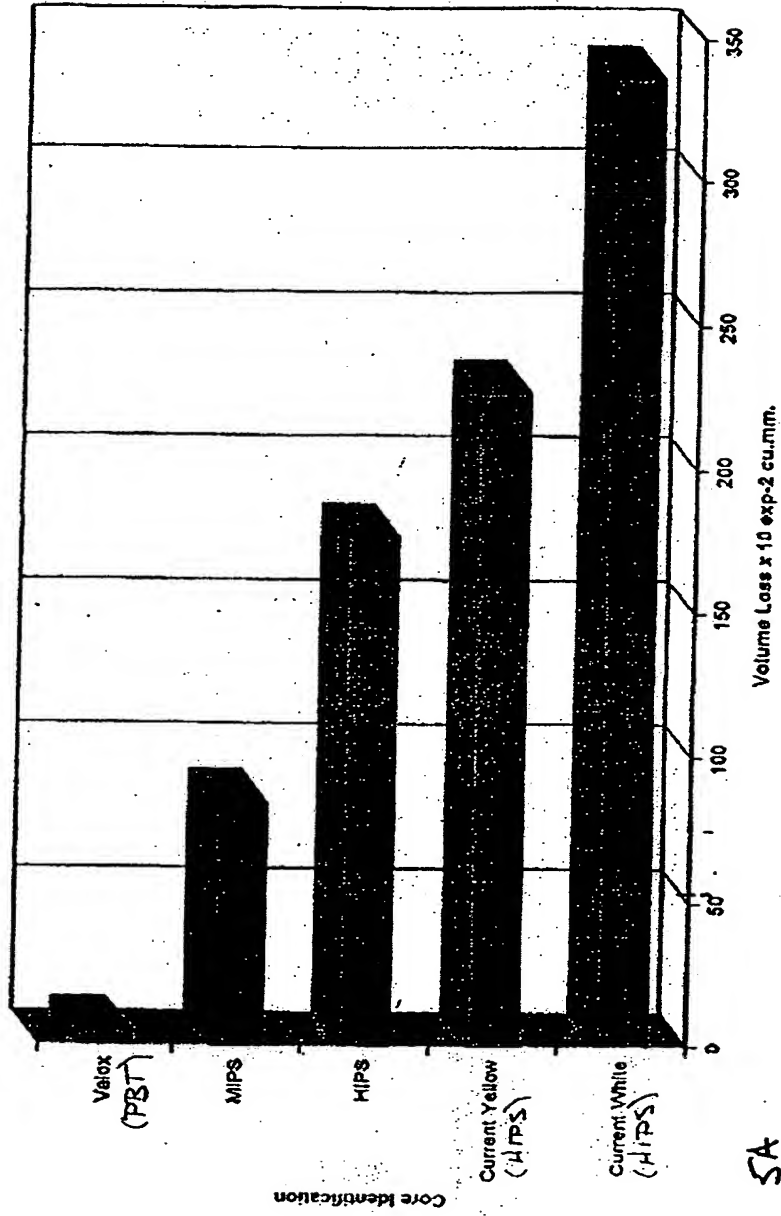


FIG 4: Ratings of debris accumulation on 316 Stainless Steel Balls

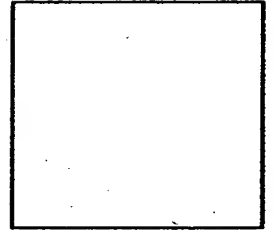
\* Rating per Kodak internal test method based on weight loss. The higher the number the greater the weight loss (debris generated).

# Volume Loss of Film Cores



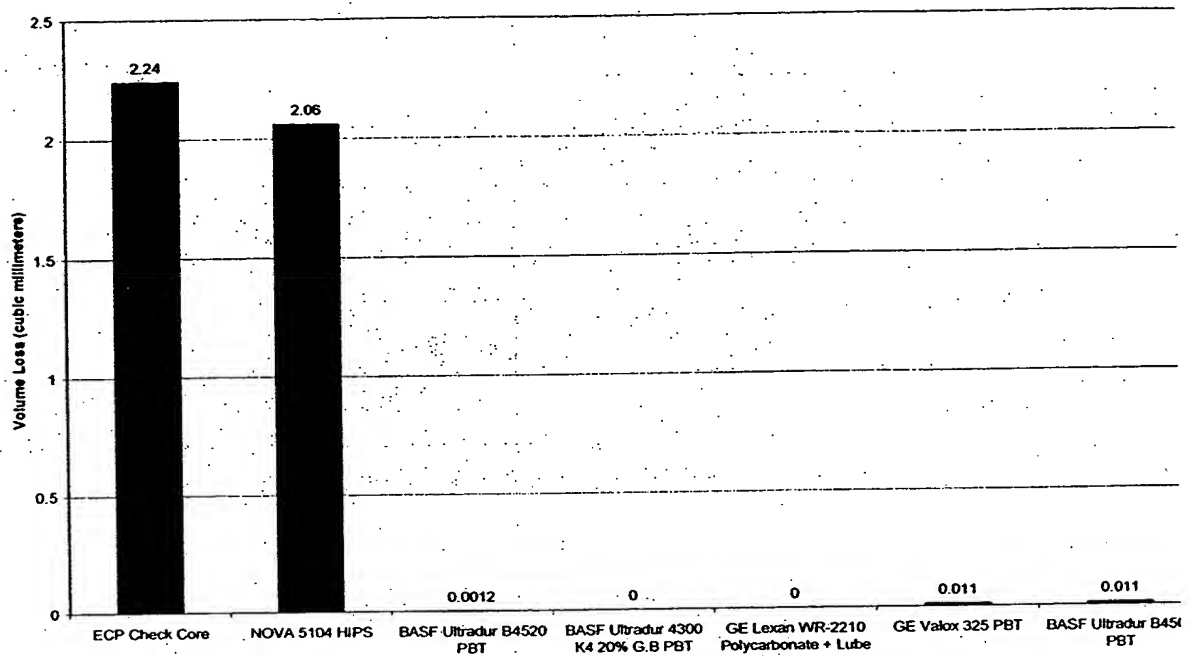
SA

FIG. 7: Average Volume Loss of Film Cores sliding vs. 316 SS



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Volume Loss of Various Cores from 316 SS Ball



Volume Loss Measurements of Various Cores and Table of calculated Wear Rate Coefficients (k).

FIG. 5B QUANTITATIVE MEASUREMENTS

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SPI Finish	Finish Type	Mold Texture ( Ra (microns, measured)	Coefficient of Friction			
			(+2 STD)	(-2 STD)	Average	STD
HIPS (Novacor "5104")	600 Grit Paper	0.10	0.63	0.53	0.58	0.027
A1	#3 Diamond Buff	0.02	0.32	0.28	0.30	0.012
A3	#15 Diamond Buff	0.04	0.28	0.24	0.26	0.01
D2E	EDM, Charmilles 18	0.80	0.29	0.23	0.26	0.015
B1	600 Grit Paper	0.10	0.24	0.18	0.21	0.017
D1	#12 Glass Bead	0.37	0.24	0.18	0.21	0.017
C3	320 Stone	0.29	0.25	0.17	0.21	0.021
D2	#10 Glass Bead	0.37	0.26	0.16	0.21	0.025
C1	600 Stone	0.32	0.21	0.17	0.19	0.01
B3	320 Grit Paper	0.23	0.21	0.15	0.18	0.015
D3	EDM, Charmilles 24	1.57	0.2	0.1	0.15	0.026

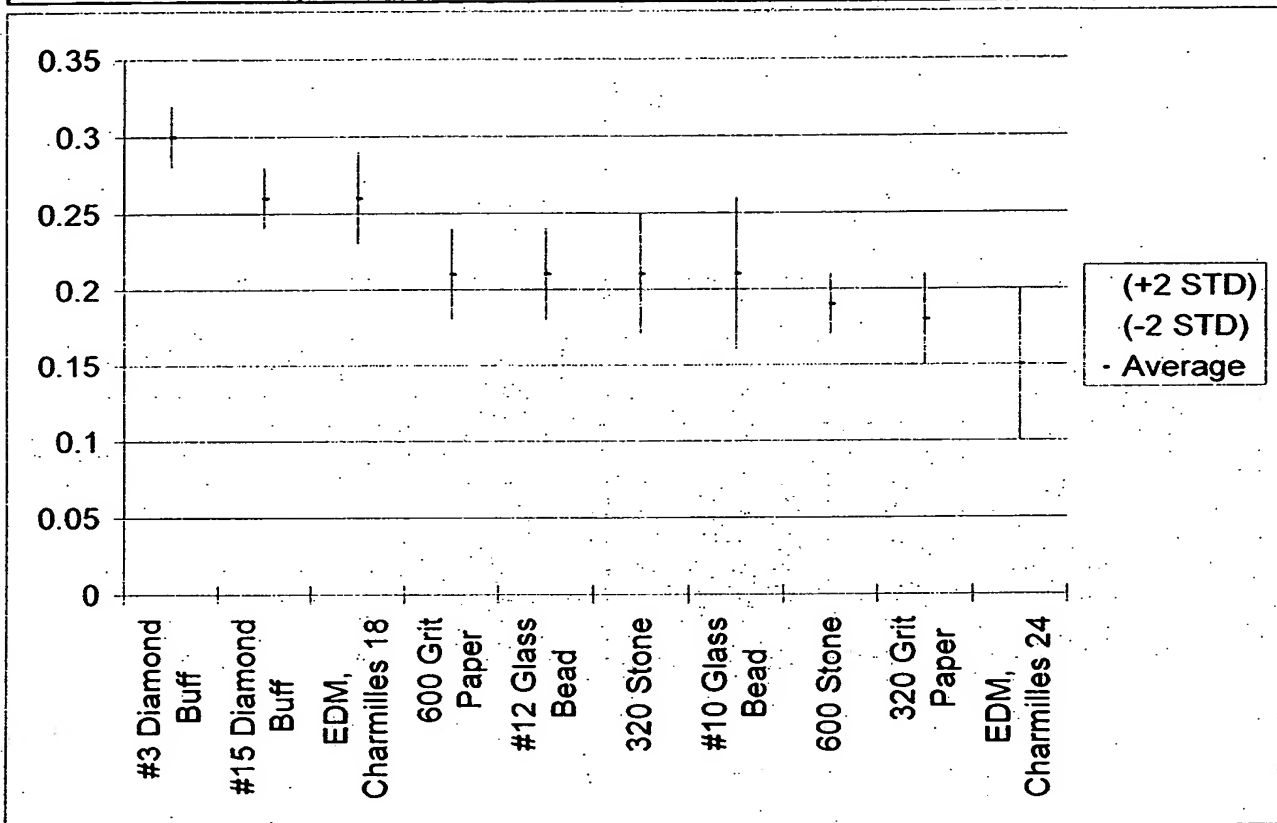


FIG 6: Static coefficient of friction of photographic film (emulsion side) against AISI type 316 stainless steel vs. mold surface texture

### Mechanical Property Comparison

	HIPS Nova "5104"	PBT GE "Valox 325"
Tensile Elongation	55%	200%
Flexural Strength	62 MPa	83 MPa
Tensile Strength	27 MPa	52 MPa
Flexural Modulus	2,300 Mpa	2,300 MPa

**FIG 7: Mechanical property comparison for PBT v HIPS**



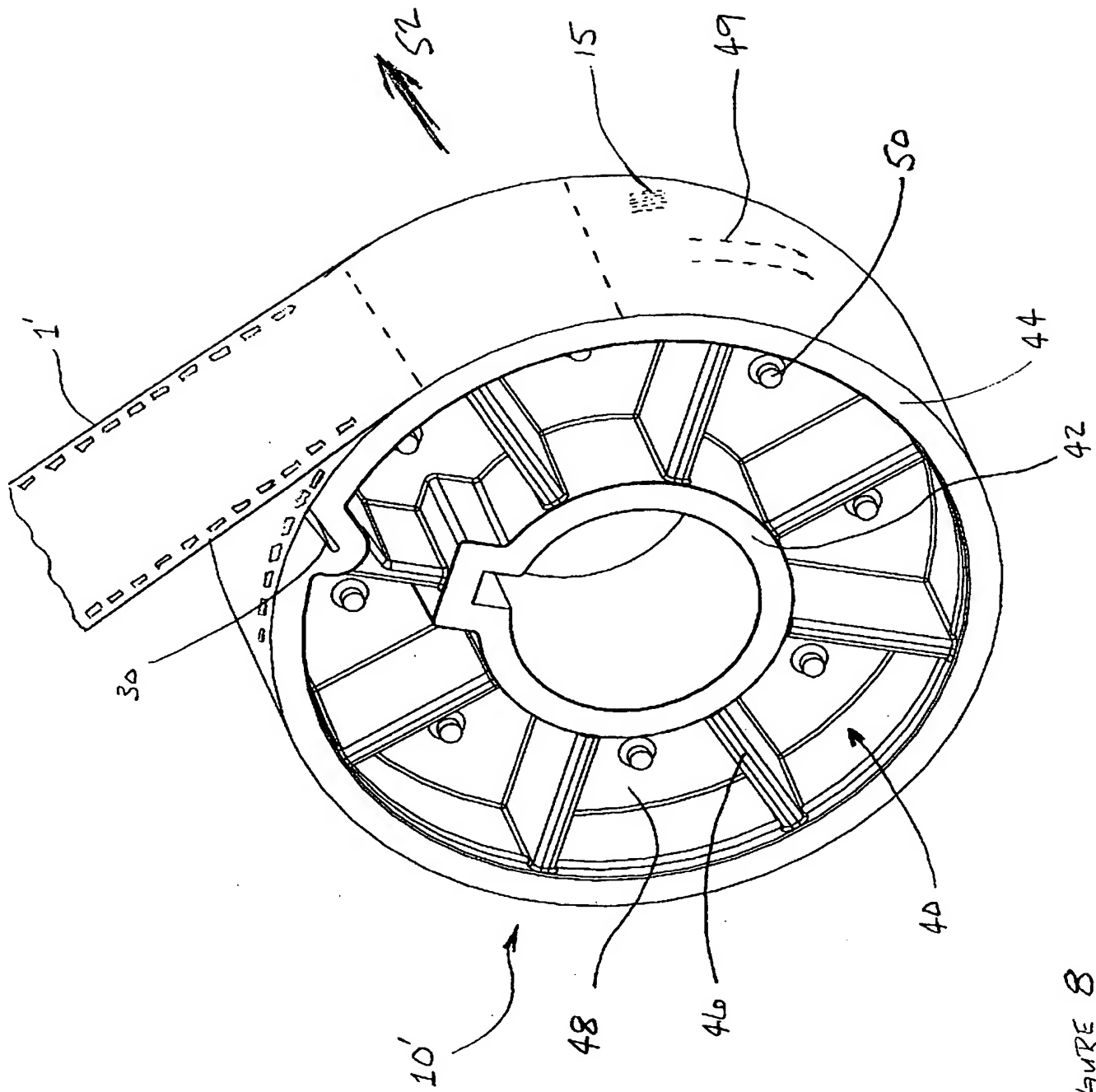


FIGURE 8